

## CLAIMS

1. A medicament for ameliorating neurotransmission dysfunction diseases comprising as a main active ingredient a selenocysteine-containing protein and/or a selenocysteine-containing peptide that consists of said protein or a series of said peptides.

2. The medicament for ameliorating neurotransmission dysfunction diseases according to claim 1 wherein said selenocysteine-containing protein is Selenoprotein P.

3. The medicament for ameliorating neurotransmission dysfunction diseases according to claim 1 wherein said selenocysteine-containing peptide is a C-terminal peptide of Selenoprotein P.

4. The medicament for ameliorating neurotransmission dysfunction diseases according to any one of claims 1 to 3 wherein said C-terminal peptide of Selenoprotein P or a series of said peptides is a protein or a peptide or a series of said peptides that has either the amino acid sequence of from 260th to 362nd amino acids in the C-terminal of Selenoprotein P, or said amino acid sequence with one or several amino acid residues therein being deleted, substituted or added, or a partial sequence of either of the above amino acid sequences, or an amino acid sequence comprising as a part any of the above amino acid sequences.

5. The medicament for ameliorating neurotransmission dysfunction diseases according to claim 4 wherein said C-terminal peptide of Selenoprotein P or a series of said peptides is a peptide or a series of said peptides that has  
5 either the amino acid sequence of:

(I): Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr Asp Ser Glu Leu Ala Pro Arg Ser Sec Cys Cys His Cys Arg His Leu (SEQ ID NO: 4) and/or

(II): Thr Gly Ser Ala Ile Thr Sec Gln Cys Lys Glu Asn  
10 Leu Pro Ser Leu Cys Ser Sec Gln Gly Leu Arg Ala Glu Glu Asn Ile (SEQ ID NO: 5)

wherein Ala is alanine, Arg is arginine, Asn is asparagine, Asp is aspartic acid, Cys is cysteine, Gln is glutamine, Glu is glutamic acid, Gly is glycine, His is histidine, Ile  
15 is isoleucine, Lys is lysine, Leu is leucine, Met is methionine, Phe is phenylalanine, Pro is proline, Ser is serine, Thr is threonine, Trp is tryptophan, Tyr is tyrosine, Val is valine, and Sec is selenocysteine;

or a partial sequence of said amino acid sequence, or said  
20 amino acid sequence with one or several amino acid residues therein being deleted, substituted or added, or a partial sequence of either of the above amino acid sequences, or an amino acid sequence comprising as a part any of the above amino acid sequences.

25 6. The medicament for ameliorating neurotransmission

dysfunction diseases according to any one of claims 1 to 5 wherein said neurotransmission dysfunction diseases are diseases caused by abnormality in synaptic formation, abnormality in function of an acetylcholine receptor, or  
5 abnormality in neurotic activity by nitrogen monoxide (also referred to as NO).

7. The medicament for ameliorating neurotransmission dysfunction diseases according to claim 6 wherein said neurotransmission dysfunction diseases are selected from  
10 myasthenia gravis, Slow-channel congenital myasthetic syndrome, amyotonia congenita, Lambert-Eaton syndrome, Alzheimer disease, dementia, spinocerebellar degenerative disease, autonomic imbalance, erection failure of spongy part of penis, failure of blood flow in the brain,  
15 functional gastroenteritis, and glaucoma.